REMARKS

Claim Amendments

Claim 14 has been amended. Support for this amendment is found throughout the specification, *see, e.g.*, ¶¶ [0010]-[0011].[1]

Claims 21, 28, and 35 have been amended to provide better antecedent basis without changing the scope thereof.

None of the amendments herein introduce new matter.

§ 112 Rejections

Claims 28 and 33

The Action alleges that claim 28 has insufficient antecedent basis for the limitation "the transverse direction." Claim 28 has been amended to provide better antecedent basis. Thus, Applicant requests withdrawal of the § 112 rejection of claims 28 and its dependent claim 33.

Claim 38

The Examiner alleges that there is no support for the limitation requiring that displacement of the lateral transmission elements towards each other applies a compressive force to the wedge so as to *urge the first and second ends away from each other*. Applicant respectfully submits that one of ordinary skill in the art understands that when the wedge is transversely compressed, the first and second ends inherently

[1] All citations herein refer to paragraph numbering in U.S. Patent Publication No. 2006/0136060. Paragraph numbering in the published application differs slightly from the paragraph numbering of the originally filed application.

are urged away from each other. With reference to the embodiment shown in Fig. 1, the lateral elements 6 are changed from their slightly bowed configuration to a straighter configuration as a result of spinal flexion. This straightening of the lateral elements 6 results in the lateral elements 6 pushing inward on the corresponding transmission elements 20. As a result, the transmission elements 20 apply a compressive force against the "wedge" 5. This compressive force causes the corresponding section of the wedge to deform inward. According to the well-known material deformation principles captured in Poisson's ratio, this inward deformation of the "middle" causes a corresponding longitudinally outward expansion of the upper and lower ends. Thus, the compressive forces applied by the transmission elements causes the upper and lower ends to be urged away from each under well-known engineering principles. In view of this, the written description reasonably conveys that Applicant was in possession of the above claimed subject matter at the time of the invention. Therefore, Applicant requests withdrawal of the § 112 rejection of claim 38.

Claim 26

The Examiner alleges that claim 26 is unclear because the claim language requires that the compressive lateral elements be in a "compressive position" when the spine is in flexion even though the compressive lateral elements are not actually compressed in this position. However, Applicant submits that the claim language is clear. In the "compressive position" the compressive lateral elements urge the lateral transmission elements inwardly to exert a compressive force against the wedge. Thus, the compressive lateral elements ultimately cause the wedge to be laterally compressed

when the spine is in flexion. Likewise, in the "releasing position" (when the spine is in extension) the compressive lateral elements relax the force exerted on the lateral transmission elements thus, reducing or "releasing" the compressive force exerted on the wedge. Accordingly, one of ordinary skill in the art would understand that the claim terms "compressive position" and "releasing position" describe the position of the compressive lateral elements as they affect the force exerted on the wedge via the lateral transmission elements. Thus, Applicant requests withdrawal of the § 112 rejection of claim 26.

§103 Rejections

Independent claims 14 and 36

Claims 14-21, 26, 27, 36, 37, 39, and 40 stand rejected under § 103 as being unpatentable over U.S. Patent Publication 2003/0220643 (Ferree) in view of U.S. Patent No. 6,626,944 (Taylor) and U.S. Patent Publication No. 2003/0109880 (Shirado). Independent claim 14 requires, *inter alia*, "two lateral transmission elements ... configured to selectively press against the lateral sides of the wedge... wherein a force applied by the lateral transmission elements against the wedge varies based on the relative spacing between the compressive lateral elements as they move between the releasing position and the compressive position in response to spinal flexion." In rejecting independent claim 14, the Examiner alleges that Ferree's sleeve 110 and screws 104/106 are analogous to the claimed wedge and lateral transmission elements respectively. However, even assuming *arguendo* that the above comparisons are proper, nothing in Ferree teaches or suggests that screws 104/106 exert a variable

amount of force to sleeve 110 in response to spinal flexion as required by the claim. Instead, screws 104/106 are fastened into respective pedicles and appear to exert a constant force, if any, to sleeve 110. Moreover, the Examiner has not pointed to any other disclosure that cures this shortcoming of Ferree. For at least this reason, independent claim 14 and its respective dependent claims define patentable subject matter over the cited art.

Independent claim 36 requires, *inter alia*, a wedge having first and second ends, each with saddle-shaped receivers, and first and second lateral sides, wherein "the distance between the first and second ends" is "greater than the distance between the first and second lateral sides." In addition, the claim requires "first and second longitudinally extending compressive lateral elements disposed adjacent to the lateral sides of the interspinous wedge, but entirely spaced away therefrom." Further, the claim requires "two lateral transmission elements being configured to selectively increase and decrease loading against the lateral sides of the wedge." Applicant notes that the Examiner never specifically alleges how Ferree, Taylor, and/or Shirado meet any of the above limitations. Thus, the §103 rejection of claim 36 and its respective dependent claims fails as a matter of law for the failure to address several express limitations.

Moreover, Applicant submits that nothing in the cited references renders the above limitations obvious. In rejecting the above claim, the Examiner alleges that Ferree's sleeve 110, plate 302/303/306, and screws 104/106 are analogous to the claimed wedge, compressive lateral elements, and lateral transmission elements respectively. However, even assuming *arguendo* that the above comparisons are

appropriate, nothing in Ferree teaches or suggests that the distance from the first and second ends of sleeve 110 is greater than the distance from the first and second lateral sides of sleeve 110, as required by the claim. Instead, as shown in Figs. 1 and 2 of Ferree, the distance from the first and second ends of sleeve 110 (vertical dimension) is less - not greater - than the distance from the first and second lateral sides of sleeve 110 (horizontal dimension). In addition, nothing in the cited references teaches or suggests that plate 302/303/306 is disposed adjacent to a lateral side of sleeve 110, but entirely spaced away therefrom, as required by the claim. Instead, as shown in Figs. 1 and 3 of Ferree, plate 302/303/306 is in direct contact with -- not entirely spaced away from -- sleeve 110. Finally, nothing in the cited references teaches or suggests that screws 104/106 selectively increase and decrease loading against the lateral sides of sleeve 110, as required by the claim. Instead, screws 104/106 are fastened into respective pedicles and exert a constant load, if any, to sleeve 110. Moreover, the Examiner has not pointed to any other reference that cures the above shortcomings of Ferree. For at least this reason, independent claim 36 and its respective dependent claims define patentable subject matter over the cited art.

Independent claims 28 and 35

Claims 28, 33, 35, 41, and 42 stand rejected under § 103 as being unpatentable over U.S. Patent Publication No. 2004/0117017 (Pasquet) in view of Taylor. Independent claims 28 and 35 require, *inter alia*, "a strap engageable around at least two spinous processes and the wedge...the strap forming a first and second compressive lateral element" and "first and second lateral transmission elements being

adapted to press against the lateral sides of the wedge...in response to forces applied by the first and second compressive lateral elements." In rejecting independent claims 28 and 35, the Examiner alleges that Pasquet's implant 10 and band 28 are analogous to the claimed wedge and strap. In addition, the Examiner alleges that fixing members 30/32 are analogous to the claimed lateral transmission elements. However, even assuming the above comparisons are proper, nothing in Pasquet teaches or suggests that a single band 28 is engageable around at least two spinous processes and implant 10, as required by the claim. Instead, Pasquet requires two separate bands 28. A first band 28 extends around the upper spinous process and a first lateral side of the implant while a second band 28 extends around the lower spinous process and a second lateral side of the implant. *See*, Pasquet, Fig. 2. Thus, no single element extends around at least two spinous processes and implant 10, as required by the claim. Accordingly, independent claims 28 and 35 and their respective dependent claims define patentable subject matter over the cited art.

Respectfully submitted,
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